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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/698,438

11/03/2003

Keisuke Kii

Q78133

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EXAMINER

CHANG, VICTOR S

ART UNIT

PAPER NUMBER

1771

MAIL DATE

DELIVERY MODE

09/17/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/698,438 | Applicant(s) KII ET AL. | |
| | Examiner Victor S. Chang | Art Unit 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 3,5 and 9-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Introduction

1. Applicants' amendments and remarks filed on 9/10/2007 have been entered. Claims 1-9 and 12 have been amended. Claims 1, 2, 4 and 6-8 are active.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. In response to the amendment, the grounds of rejection have been updated as set forth below. Rejections not maintained are withdrawn.

Double Patenting

4. Claims 1, 2, 4 and 8 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2 and 5 of copending Application No. 10/422,854. Although the conflicting claims are not identical, they are not patentably distinct from each other because they obviously read on each other as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicants' request [Remarks page 6] to hold this provisional nonstatutory obviousness-type double patenting (ODP) rejection in abeyance is noted. However, there is no provision in the rules for such and the copending application has an earlier filing date, the ODP rejection will not be held in abeyance. Appropriate response is required in next reply to avoid abandonment of the application.

Rejections Based on Prior Art

5. Claims 1, 2, 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-183085 [see IDS filed 8/30/2005].

JP '085 relates to a heat resistant adhesive adhered on a foam (porous) substrate [abstract; 0001]. The adhesive is crosslinkable polymer comprising monomers including carboxyl group containing acrylic acid, etc. [0017], and is crosslinkable with polyfunctional isocyanate crosslinking agent [0010-0011 and 0029]. The amount of crosslinking agent is in the range of 0.01-0.5 wt% to avoid gel fraction exceeding 50% for a suitable adhesion to the foam substrate [0030]. The glass transition temperature of the acrylic acid containing adhesive includes -30°C [0014]. Various porous substrates including polymer foams and nonwoven (known battery separator application) are disclosed [0052].

For claims 1, 2, 4 6 and 8, JP '085 discloses all the features as claimed. It should be noted that the term "partially crosslinked" is anticipated, because JP '085 teaches that the amount of crosslinking agent controls the gel fraction of the crosslinked adhesive: a higher gel content can be obtained with a greater amount of crosslinking agent, i.e., the disclosed adhesive is partially crosslinked. Further, it should be noted that the contemplated end use of the material has not been given patentable weight, because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

6. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-183085 [see IDS filed 8/30/2005].

The teachings of JP '085 are again relied upon as set forth above.

For claim 7, JP '085 is silent about the supporting ratio (surface coverage ratio) of the adhesive over the substrate. However, the examiner takes Official notice that reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost. It would have been obvious to one of ordinary skill in the art of adhesive to modify the invention of JP '085 accordingly.

Response to Argument

7. Applicants argue [Remarks page 7] that in JP '085 there is no intention to conduct crosslinking only partially and to keep the remainder uncrosslinked. However, applicants also admitted in the same paragraph that in JP '085 that an isocyanate crosslinking generally terminates after the isocyanate is consumed or deactivated by the reaction. In other words, the hydroxyl group in the reactive polymer is in generally in excess. Further, nowhere is there a teaching by JP '085 that only a matching amount of hydroxyl groups is incorporated in the reactive polymer. The examiner maintains that JP '085 anticipates the claimed feature of partial crosslinking.

Applicants argue [Remarks pages 8-9] that the basis of examiner's Official notice of "reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or reduced cost" is not considered to be common knowledge or well known in the art. However, the argument does not specifically point out the supposed error in Examiner's action, including a statement of why the noticed fact is not

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considered to be common knowledge or well-known in the art. See MPEP § 716.01 and MPEP § 2144.03.C. See 37 CFR 1.111(b). See also *Chevenard*, 139 F.2d at 713, 60 USPQ at 241.

Applicants state [Remarks page 9] that with regard to the function of the battery, the securement of ion permeability is important, and it is preferable that the supporting ratio of adhesive is lower. However, when the adhesion to a battery is considered, it is preferable that the supporting ratio of adhesive is higher, since the adhesion area becomes larger. The examiner notes that applicants appear to provide additional reasoning why a workable supporting ratio is desired, even if the use language in the preamble is considered. The statement fails to overcome the basis of rejection.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor S Chang/
Primary Examiner, Art Unit 1771

9/17/2007